SR - 710 Tunnel Technical Study

City of La Cañada Flintridge Community Meeting

May 26, 2009

Introductions

- **Elected Officials**
- **Caltrans**
- **Metro**
- **Community Outreach Team**
- **Technical Team**

Purpose of Meeting

- Learn why we are doing the Study

- Describe the Exploration Program

- Engage in two-way conversation

- Learn the best ways to communicate to you and involve you

Agenda Overview

- **Tunnel Technology**
- **Exploration Program**
- **Questions, Answers, Comments**
- **Next Steps**

Ground Rules

- **Maintain mutual respect**
- **Maintain a respectful environment**
- **Listen to each other; learning from each other**
- **Keep an open mind – all ideas are valid**
- **Opinions need to be respected**

Why Tunnels?

- **Reduce impacts to communities and sensitive areas**

Modern Tunnel Systems

- **Lighting**
- **Communications**
- **Traffic Surveillance**
- **Ventilation**
- **Air Monitoring**
- **Motorist Aid Stations**
- **Emergency Egress/Refuge**
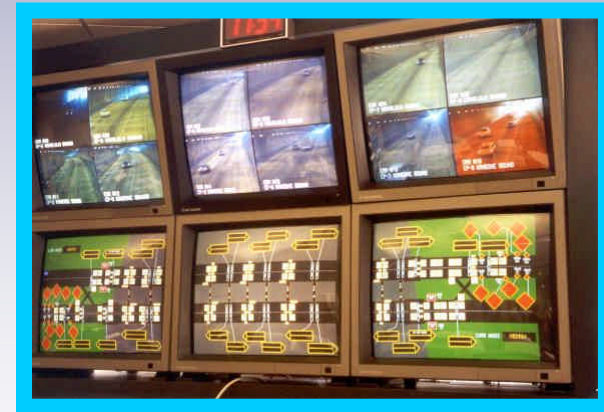- **Public Address/Radio Rebroadcast**

Tunnel Safety

Lighting and Communication

Traffic Surveillance and Communication

Motorist Assistance

Motorist Aid Station
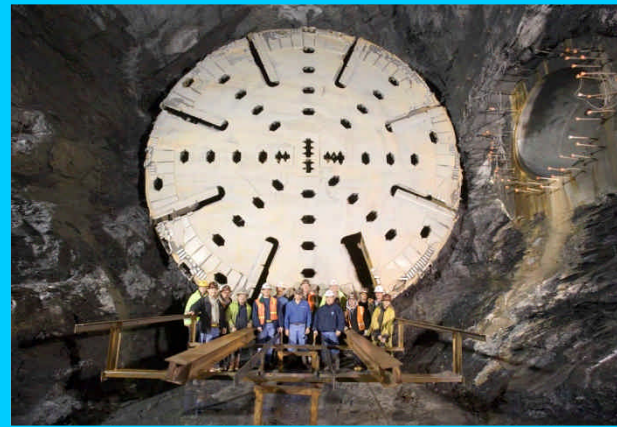

Cross Passage for Emergency Access

OMC Building

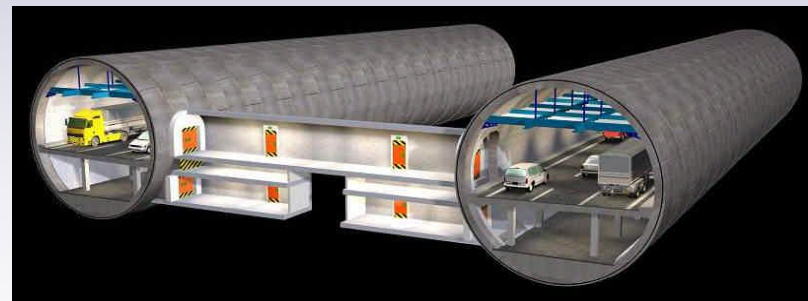# Jet Fan Ventilation

Two Basic Options

- **Tunnel Boring Machines (TBM)**
- **New Austrian Tunneling Method/Sequential Excavation Method (NATM/SEM)**

Madrid – "Calle" 30 Highway Tunnel

- **Tunnel on M-30 highway to relieve inner-city traffic congestion**
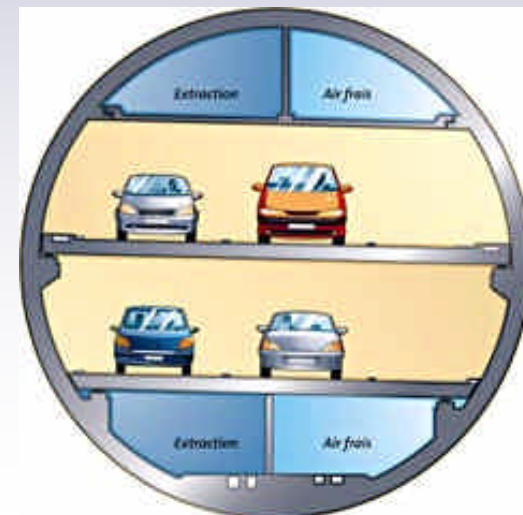- **Twin bores 3.6 km long**
- **3 traffic lanes on top of 2 emergency lanes**

Shanghai – Yangtse River Crossing

- **Twin bores 7.2 km each**
- **3 traffic lanes in each direction**
- **Mass transit trains run on lower level**

Paris – A86 Tunnel

- **Two tunnels 7.5 and 10 km long**
- **6 traffic lanes in each tunnel (3 in each direction)**

Objective of the Exploration Program

- **A total of 5 potential zones were investigated**

- **Collected geotechnical, geological, and hydro-geological information for each zone**

- **Information to be used for screening purposes**

Exploration Plan Zones